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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/510,938	02/22/2000	Paul S Murray	1004-4085	2969

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ART UNIT	PAPER NUMBER
2857	

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Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Offic Action Summary</b>	Application No.	Applicant(s)
	09/510,938	MURRAY ET AL.
	Examiner Elias Desta	Art Unit 2857
-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --		
Period for Reply		
A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.		
<ul style="list-style-type: none"> <li>- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.</li> <li>- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.</li> <li>- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.</li> <li>- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).</li> <li>- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).</li> </ul>		
<b>Status</b>		
<p>1)<input checked="" type="checkbox"/> Responsive to communication(s) filed on <u>07 January 2003</u>.</p> <p>2a)<input type="checkbox"/> This action is FINAL.                    2b)<input checked="" type="checkbox"/> This action is non-final.</p> <p>3)<input type="checkbox"/> Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under <i>Ex parte Quayle</i>, 1935 C.D. 11, 453 O.G. 213.</p>		
<b>Disposition of Claims</b>		
<p>4)<input checked="" type="checkbox"/> Claim(s) <u>1-18</u> is/are pending in the application.</p> <p>4a) Of the above claim(s) _____ is/are withdrawn from consideration.</p> <p>5)<input type="checkbox"/> Claim(s) _____ is/are allowed.</p> <p>6)<input checked="" type="checkbox"/> Claim(s) <u>1-18</u> is/are rejected.</p> <p>7)<input type="checkbox"/> Claim(s) _____ is/are objected to.</p> <p>8)<input type="checkbox"/> Claim(s) _____ are subject to restriction and/or election requirement.</p>		
<b>Application Papers</b>		
<p>9)<input type="checkbox"/> The specification is objected to by the Examiner.</p> <p>10)<input checked="" type="checkbox"/> The drawing(s) filed on <u>22 February 2000</u> is/are: a)<input type="checkbox"/> accepted or b)<input checked="" type="checkbox"/> objected to by the Examiner.</p> <p style="margin-left: 20px;">Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).</p> <p>11)<input type="checkbox"/> The proposed drawing correction filed on _____ is: a)<input type="checkbox"/> approved b)<input type="checkbox"/> disapproved by the Examiner.</p> <p style="margin-left: 20px;">If approved, corrected drawings are required in reply to this Office action.</p> <p>12)<input type="checkbox"/> The oath or declaration is objected to by the Examiner.</p>		
<b>Priority under 35 U.S.C. §§ 119 and 120</b>		
<p>13)<input type="checkbox"/> Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).</p> <p>a)<input type="checkbox"/> All b)<input type="checkbox"/> Some * c)<input type="checkbox"/> None of:</p> <p>1.<input type="checkbox"/> Certified copies of the priority documents have been received.</p> <p>2.<input type="checkbox"/> Certified copies of the priority documents have been received in Application No. _____.</p> <p>3.<input type="checkbox"/> Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).</p> <p>* See the attached detailed Office action for a list of the certified copies not received.</p> <p>14)<input type="checkbox"/> Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).</p> <p>a)<input type="checkbox"/> The translation of the foreign language provisional application has been received.</p> <p>15)<input type="checkbox"/> Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.</p>		
<b>Attachment(s)</b>		
<p>1)<input checked="" type="checkbox"/> Notice of References Cited (PTO-892)</p> <p>2)<input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)</p> <p>3)<input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449) Paper No(s) 2.</p> <p>4)<input type="checkbox"/> Interview Summary (PTO-413) Paper No(s) _____.</p> <p>5)<input type="checkbox"/> Notice of Informal Patent Application (PTO-152)</p> <p>6)<input type="checkbox"/> Other: _____</p>		

## Detailed Action

### Drawing

1. The drawing is objected to because of the following minor informalities:
  - Figure 4A: the total percentage value for “Contribution to Index” is over 100, show all the values without rounding off in order to keep the total at 100%.

### Claim Objection

2. Claims 2 and 3 are objected to because of the following minor informalities:
  - Claim 2: the first line should read “the method of claim 1”, the reference “1” is missing.
  - Claim 3: the phrase “business impact weighted server panic index” should be corrected to read “business impact or weighted server panic index”.

### Claim rejection – 35 U.S.C. 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) The invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

4. Claims 1-6 and 8-18 are rejected under 35 U.S.C. 102(b) as anticipated by Barringer.

In reference to claim 1: Barringer teaches a method of characterizing a system (see Barringer, page 2, paragraph 2). The method includes:

- Logging an outage of a system (see Barringer, Table 1: Raw Data from Operating logs);
- Measuring an index associated with each outage, where the index is selected from business impact of the outage (see Barringer, page 2, effectiveness or Figure of Merit equation, consists of availability, reliability and maintainability factors); and
- Calculating a Figure of Merit (FOM) based on the contributions of each outage weighted (values fall between 0 and 1, see page 2, last paragraph) in accordance with the associated indicia (see Barringer, page 2, abstract or paragraph 1, and pages 4-7).

With regard to claim 2: as noted above in claim 1, Barringer further shows that the Figure of Merit (FOM) includes business impact weighted availability, reliability or maintainability measures (see Barringer, pages 4-7).

With regard to claim 3: as noted above in claim 1, Barringer further shows that the FOM includes business impact or weighted server panic index (see Barringer, page 6, paragraph 3 and Figure 1).

With regard to claim 4: as noted above in claim 1, Barringer further shows that the outage logging is performed on system wide basis (see Barringer, page 4, 3<sup>rd</sup> paragraph from the bottom and page 3, Table 1).

With regard to claim 5: as noted above in claim 1, Barringer further shows that the outage logging is performed for individual subsystems, services and functionality of the characterized system (see Barringer, Table 1, and page 3, paragraphs 3-5).

With regard to claim 6: as noted above in claim 1, Barringer further shows that the outage logging encodes a level of performance degradation (see Barringer, page 6, paragraphs 3 and 4).

With regard to claim 8: as noted above in claim 1, Barringer further shows that using FOM as a factor in an employee compensation scheme because Fig. 2, Probability Plot of Maintenance Down Time, shows that there is an inherent relationship between employee compensation and Elapsed Time For Maintenance action.

With regard to claim 9: as noted above in claim 1, Barringer further shows that the method includes evaluating a service level commitment using the FOM (see Barringer, Figure 3, effectiveness equates FOM).

With regard to claim 10: as noted above in claim 1, Barringer further shows that the method includes calculating life cycle cost (see Barringer, Figure 3, LCC value), hence the low value of LCC can be interpreted as an incentive fee or cost.

With regard to claim 11: as noted above in claim 1, Barringer further shows that the method is characterized as information system (see Barringer, page 9, paragraph 6, and Fig. 3).

In reference to claim 12: Barringer teaches a computer program product encoded in one or more computer readable media (see Barringer, page 8, paragraph 4 to page 9, paragraph 1). The program is not explicitly described, but it is inherent that the program would run to compute all the required algorithms (see Barringer, page 9, paragraph 1, lines 1-3). Therefore, the software includes:

- Instruction to obtain event data (see Barringer, Table 1);
- Instructions executable to associate elements of the event data with business impact (see Barringer, page 9, Fig. 3);

- Instructions executable to calculate a Figure of Merit (FOM) including contributions for each event data element weighted (between 0-1) based on the associated business impacts (LCC value) (see Barringer, pages 4-9, and Fig. 3).

With regard to claim 13: as noted above in claim 12, Barringer further shows that the event data includes one or more of outages (availability), service interruptions (reliability), and performance degradation (maintainability) of the monitored systems and individual subsystems (see Barringer, pages 4-9).

With regard to claim 14: as noted above in claim 12, Barringer further shows that the computer program product encoded in a computer (see Barringer, page 8, paragraph 4 to page 9, paragraph 1). It is also known in the art that a computer at least would have some sort of a recordable or readable media to run and compute data.

In reference to claim 15: Barringer teaches a monitoring system (see Barringer, page 2, paragraphs 1 and 2). The system includes:

- An interface to event data for monitored subsystems (see Barringer, page 8, Table 1);
- Means for associating elements of the event data with business impacts (see Barringer, page 9, Fig. 3);
- Means for calculating Figure of Merit (FOM or effectiveness) including contributions for the event data weighted (values range from 0-1) in accordance with the associated business impacts (see Barringer, page 9, Fig. 3, effectiveness, and LCC).

With regard to claim 16: as noted above in claim 15, Barringer further shows that the Figure of Merit further includes:

➤ Instructions executable on the monitoring system to weight contributions to an availability, reliability or maintainability index in accordance with the associated business impact of each event on the monitored subsystems (see Barringer, pages 4-9, and Fig. 3).

With regard to claim 17: as noted above in claim 15, Barringer further shows that the event data include incidence and duration of server panics (see Barringer, page 6, paragraph 3), and the means for calculating a Figure of Merit (FOM) (see Barringer, page 2, effectiveness (FOM) equation and page 9, Fig. 3, effectiveness). The Figure of Merit includes instructions executable on the monitoring system to weight (0-1) contribution of each life cycle cost or considered as some sort of panic index.

With regard to claim 18: as noted above in claim 15, Barringer further includes four parameter values (availability, reliability, maintainability, and capability) used as a state tracking tools executable on the monitored systems to supply the event data (see Barringer, pages 4-9, and Fig. 3).

### **Claim rejection – 35 U.S.C. 103**

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claim 7 is rejected under 35 U.S.C. 103(a) as being unpatentable over Barringer in view of Colby.

In reference to claim 7: as noted above in claim 1, Barringer teaches a method of characterizing a system. However, the method does not teach remote monitoring of outages.

Colby teaches a software improvement that will increase the chance of success by computing and displaying in “real time” a Figure of Merit (see Colby, page 3, software, 1<sup>st</sup> list). Fig. 1 shows a schematic of the fine timing setting and read back electronics with a remote coarse phase reader for LEAP (Laser Electron Acceleration Project) experiment.

Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the method of characterizing a system by computing Figure of Merit as taught by Barringer and incorporate a remote monitoring system (the LEAP project) as disclosed in Colby in order to provide a remote monitoring feature, because remote accessing method would allow the user to collect and monitor the phase difference or system outage index and perform the Figure of Merit calculation with better source allocation and efficiency.

## Conclusion

7. The prior art made of record and not relied upon is considered pertinent to applicant disclosure.

- Tyco (Technical Note, 1997) provides a reliable Figure of Merit used as a statistical estimate for the equipment population.
- Bosinoff et al. (Patent 5,031,124) describes a method for selecting computer storage devices for computer applications. Several performance factors are computed, and then the performance factors are multiplied to derive a product that represents a single Figure of Merit.

➤ Barringer discloses a method of computing Life Cycle Costs. The method includes computing a reliability factor to estimate the total costs experienced during the life of the equipment or project.

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Elias Desta whose telephone number is (703)-305-3840. The examiner can normally be reached on M-Thu (8:00-6:30).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Marc S. Hoff can be reached on (703)-308-1677. The fax phone numbers for the organization where this application or proceeding is assigned are (703)-308-5841 for regular communications and (703)-308-5841 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703)-308-1782.

Elias Desta  
Examiner  
Art Unit 2857

- ed

February 12, 2003

  
MARC S. HOFF  
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